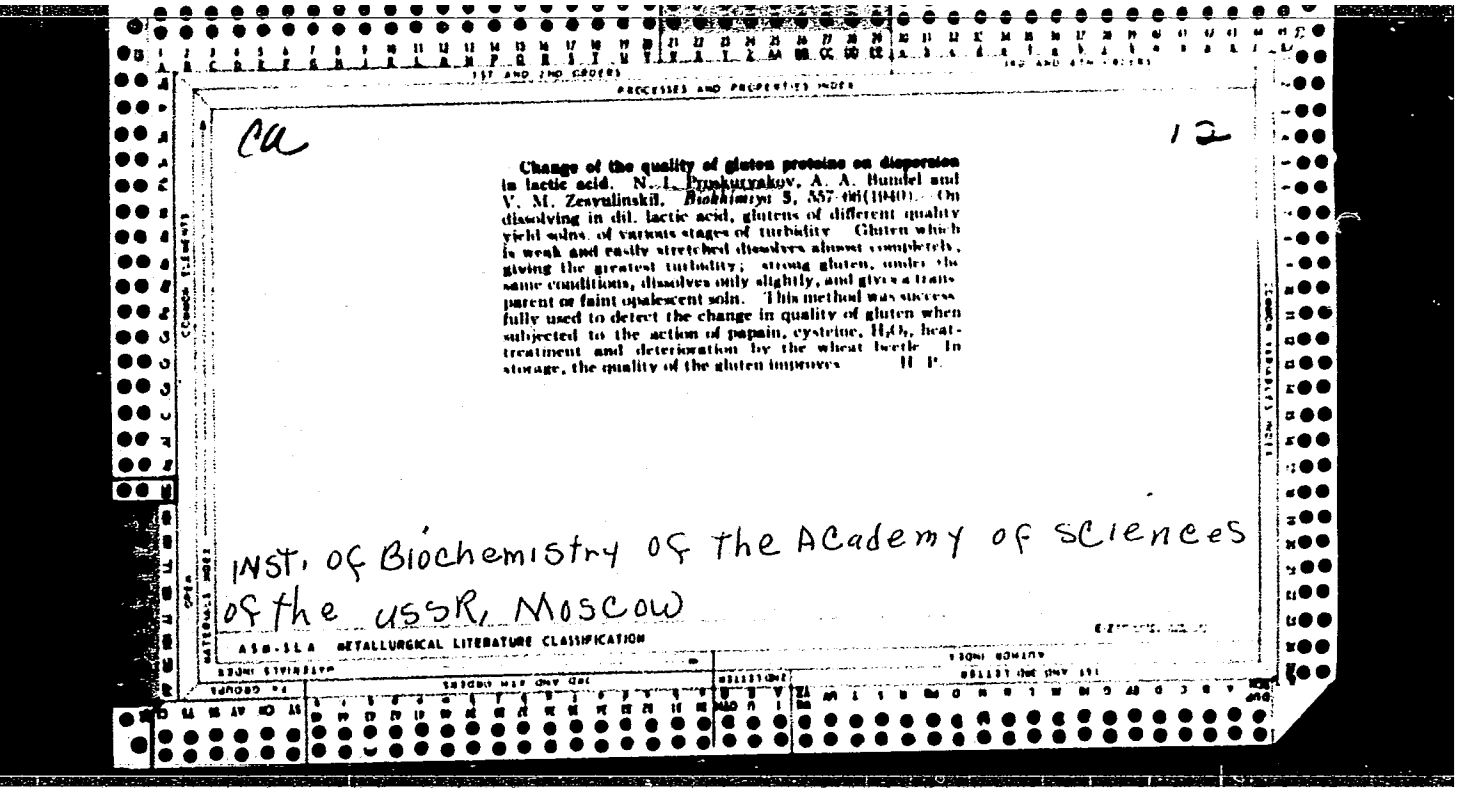


PROCESSES AND PROPERTIES INDEX

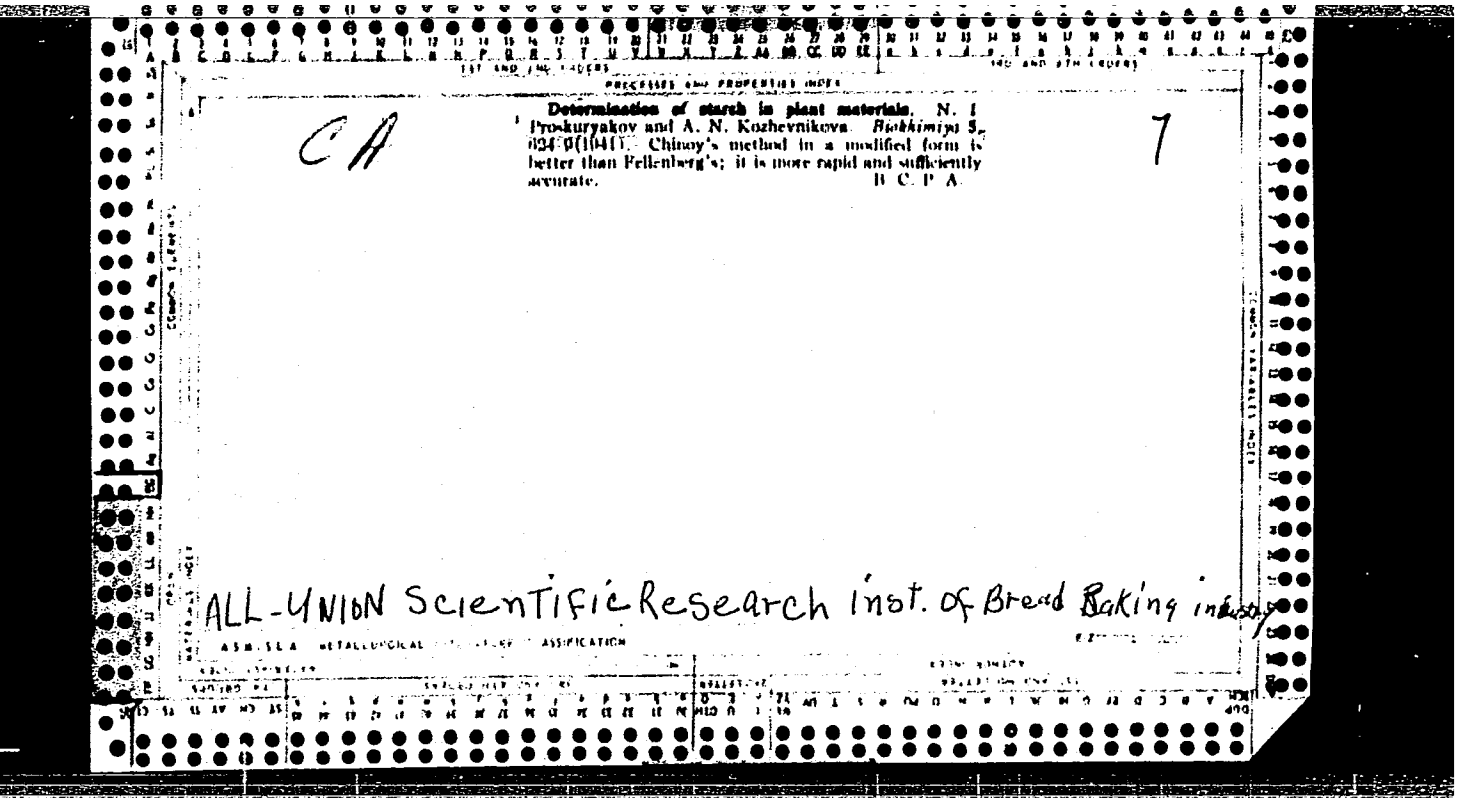
Ca

12

Change of the quality of gluten proteins on dispersion in lactic acid. N. I. Prokuryakov, A. A. Hundel and V. M. Zenyalinskii. *Biokhimiya* 5, 557-60(1940). On dissolving in dil. lactic acid, glutens of different quality yield solns. of various stages of turbidity. Gluten which is weak and easily stretched dissolves almost completely, giving the greatest turbidity; strong gluten, under the same conditions, dissolves only slightly, and gives a transparent or faint opalescent soln. This method was successfully used to detect the change in quality of gluten when subjected to the action of papain, cysteine, H_2O_2, heat-treatment and deterioration by the wheat beetle. In storage, the quality of the gluten improves. H. P.

Inst. of Biochemistry of the Academy of Sciences of the USSR, Moscow

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

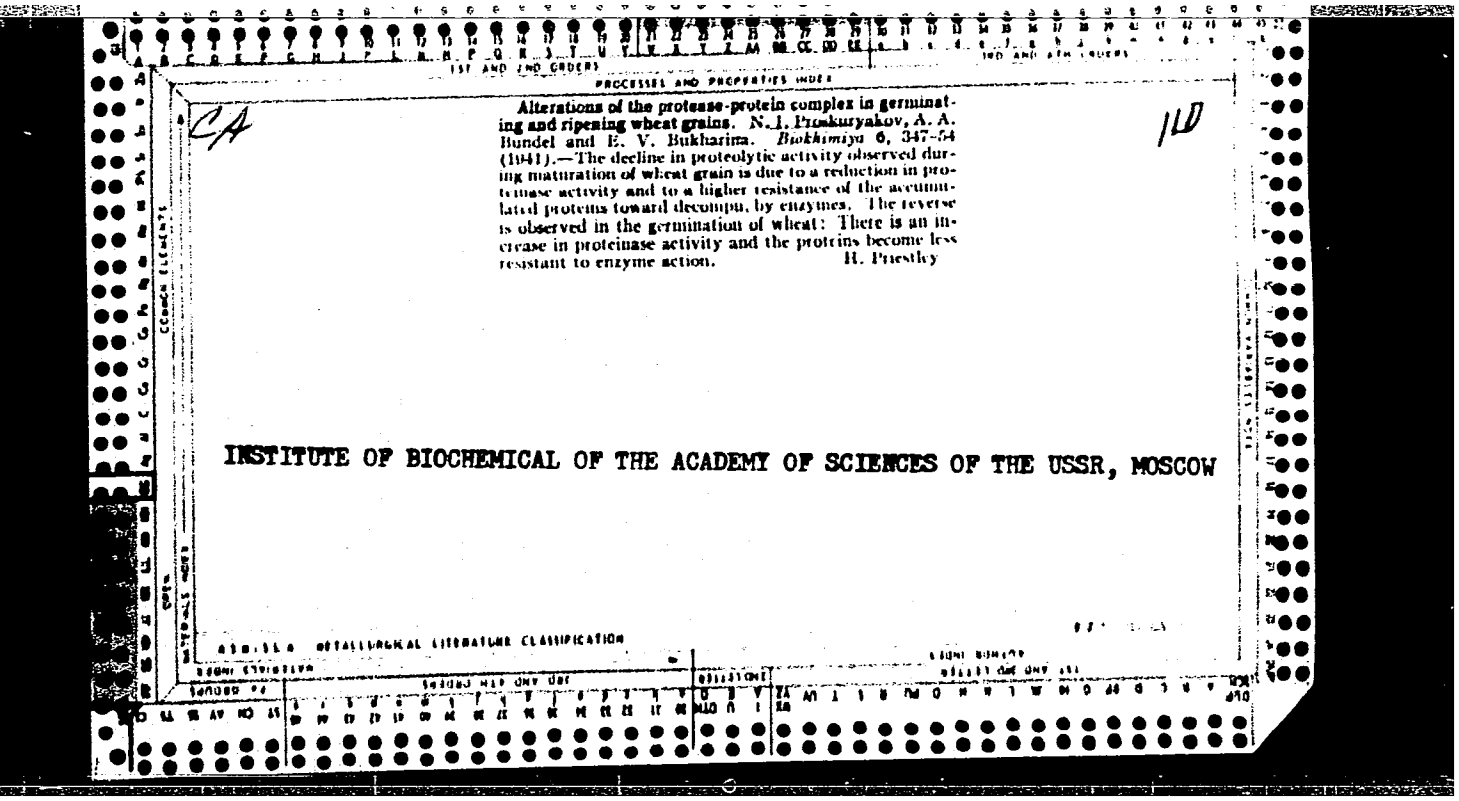


CA

Determination of starch in plant materials. N. I. Proskuryakov and A. N. Kozhevnikova. *Biokhimiya* 8, 034-9(1941). Chinoy's method in a modified form is better than Fellenberg's; it is more rapid and sufficiently accurate. B. C. P. A.

7

ALL-UNION Scientific Research Inst. of Bread Baking Indust



PROCESSES AND PROPERTIES INDEX

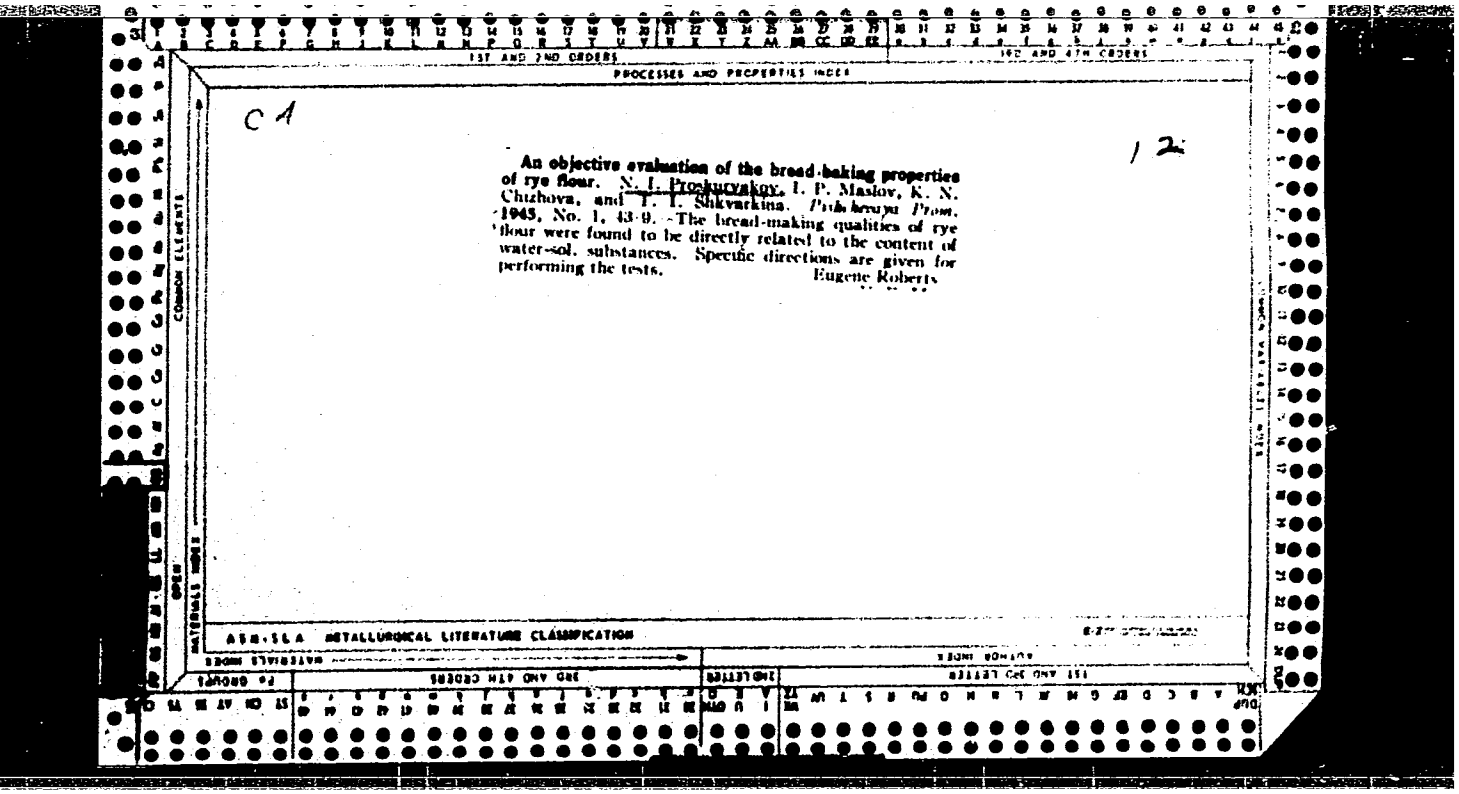
CA

10

Alterations of the protease-protein complex in germinating and ripening wheat grains. N. I. Proskuryakov, A. A. Bundel and E. V. Bukharina. *Biokhimiya* 6, 347–54 (1941).—The decline in proteolytic activity observed during maturation of wheat grain is due to a reduction in proteinase activity and to a higher resistance of the accumulated proteins toward decompn. by enzymes. The reverse is observed in the germination of wheat: There is an increase in proteinase activity and the protein become less resistant to enzyme action. H. Priestley

INSTITUTE OF BIOCHEMICAL OF THE ACADEMY OF SCIENCES OF THE USSR, MOSCOW

METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

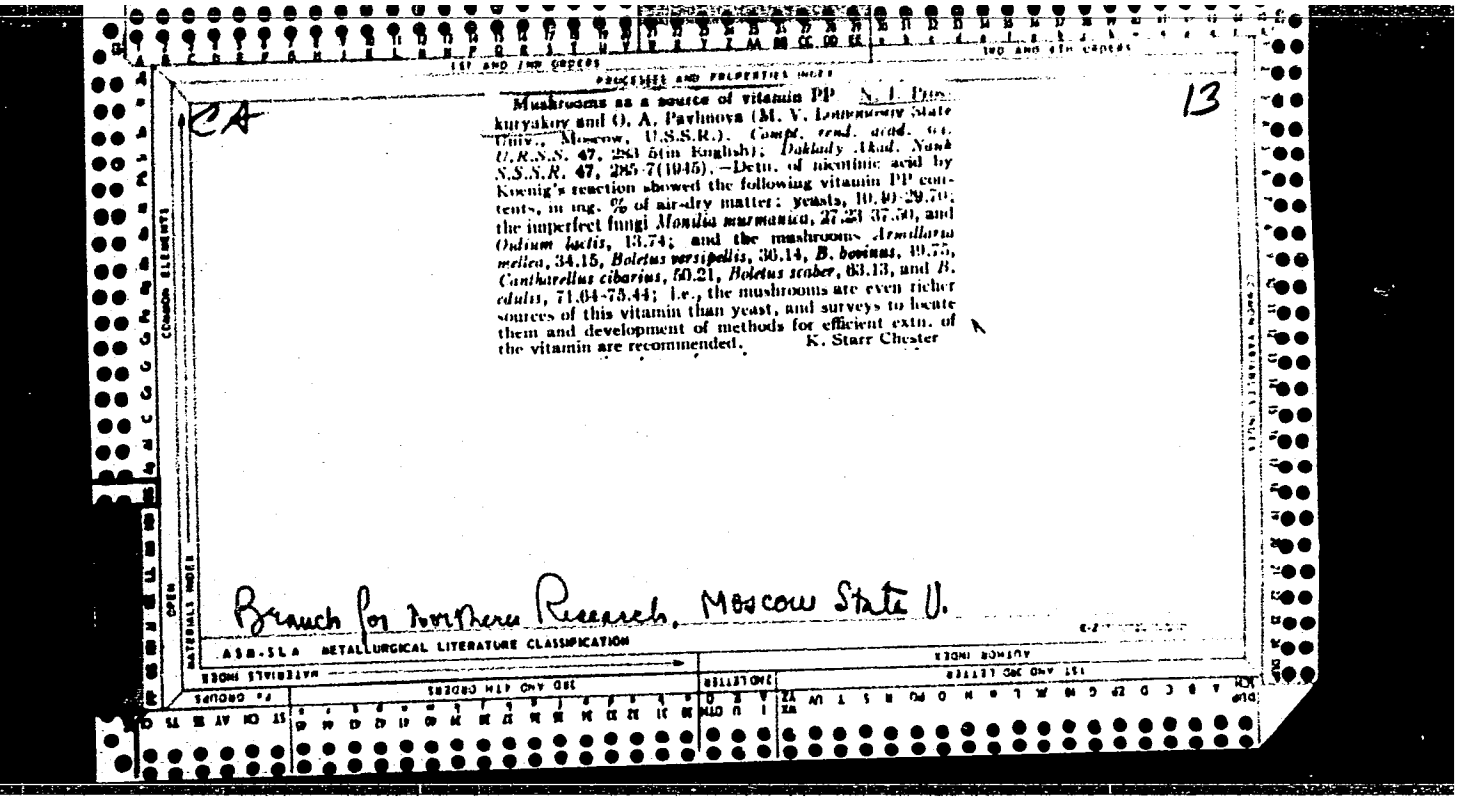
CA

12

Enzymic treatment of bran as a means of increasing its digestibility. A. I. Oparin, N. I. Proskuryakov, and L. A. Tseitlin. *Doklady Akad. Nauk S.S.S.R.* 46, 256-61(1945); *Compt. rend. acad. sci. U.R.S.S.* 46, 236-9(1945)(in English).—The enzymes of *Aspergillus oryzae* cause extensive saccharification of the starch, hemicelluloses, and pentosans of wheat bran which had been previously treated with boiling water. In one run, after 2 hrs. of enzyme saccharification with "fungal malt," the treated bran contained (dry basis) 20.1% monoses, 2.8% sucrose, and 34.4% maltose-like sugars and dextrins. The saccharification treatment also converted 68.3% of the protein N into digestible form. Leavening the saccharified bran with a 2-day-old culture of *Bacillus delbrückii* increased the percentage of digestible protein N to 71.4% of the total.

Dept. Plant Biochemistry, Moscow State U.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

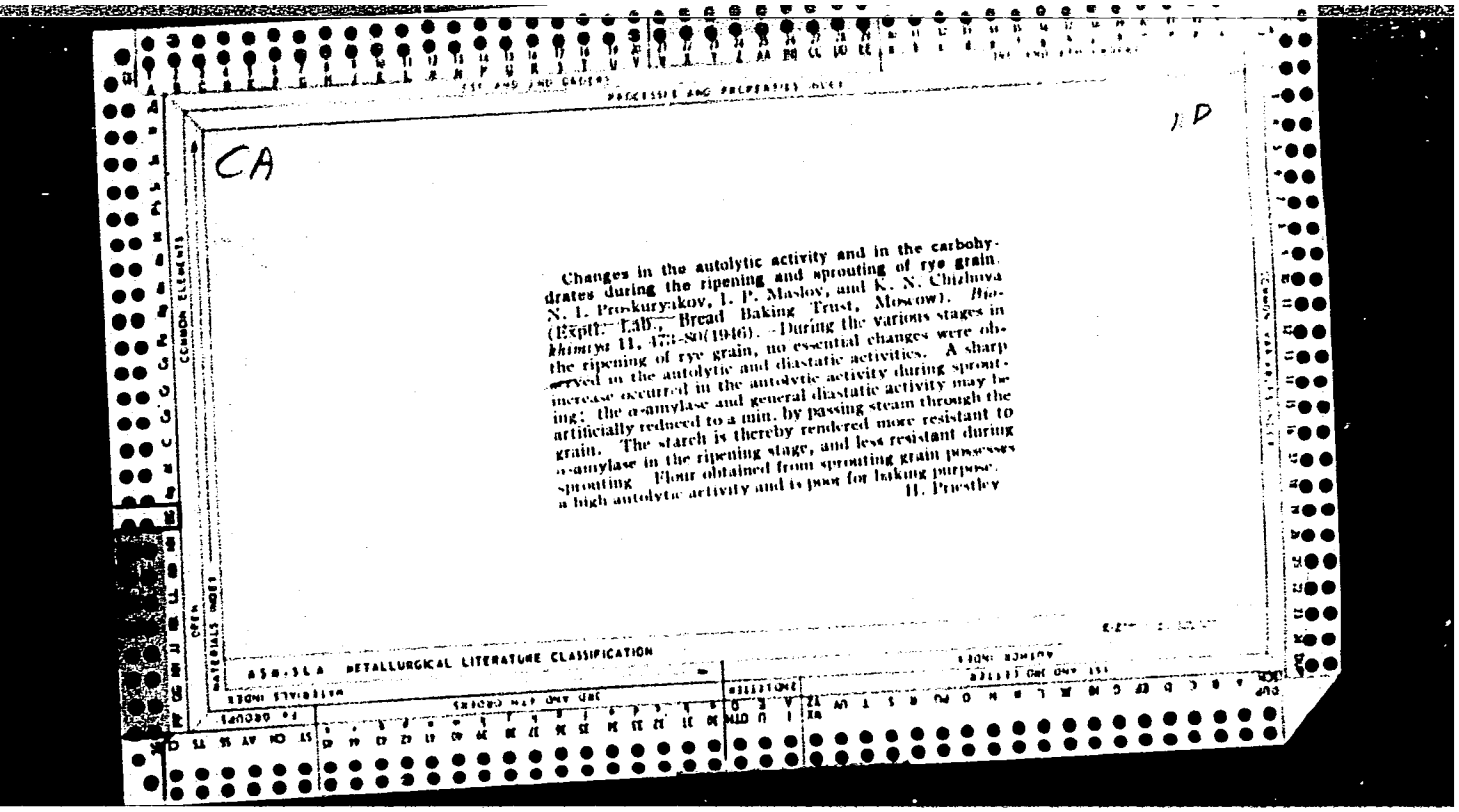


CA

13

Mushrooms as a source of vitamin PP N. I. Pis-kunyakov and O. A. Pavlinova (M. V. Lomonosov State Univ., Moscow, U.S.S.R.). *Compt. rend. acad. sci. U.R.S.S.* **47**, 283-5(in English); *Doklady Akad. Nauk S.S.S.R.* **47**, 285-7(1945).—Detn. of nicotinic acid by Koenig's reaction showed the following vitamin PP contents, in mg. % of air-dry matter: yeasts, 10.40-29.70; the imperfect fungi *Monilia murmanica*, 27.23-37.50, and *Oidium lactis*, 13.74; and the mushrooms *Armillaria mellea*, 34.15, *Boletus versipellis*, 36.14, *B. bovinus*, 49.75, *Cantharellus cibarius*, 50.21, *Boletus scaber*, 63.13, and *B. edulis*, 71.64-75.44; i.e., the mushrooms are even richer sources of this vitamin than yeast, and surveys to locate them and development of methods for efficient extn. of the vitamin are recommended. K. Starr Chester

Branch for Northern Research, Moscow State U.



CA

1 D

Changes in the autolytic activity and in the carbohydrates during the ripening and sprouting of rye grain. N. I. Proskuryakov, I. P. Maslov, and K. N. Chizhova (Exptl. Lab., Bread Baking Trust, Moscow). *Biokhimiya* 11, 473-80(1946). -During the various stages in the ripening of rye grain, no essential changes were observed in the autolytic and diastatic activities. A sharp increase occurred in the autolytic activity during sprouting; the α-amylase and general diastatic activity may be artificially reduced to a min. by passing steam through the grain. The starch is thereby rendered more resistant to α-amylase in the ripening stage, and less resistant during sprouting. Flour obtained from sprouting grain possesses a high autolytic activity and is poor for baking purposes.
H. Priestley

PROSKURYAKOV, N. I.

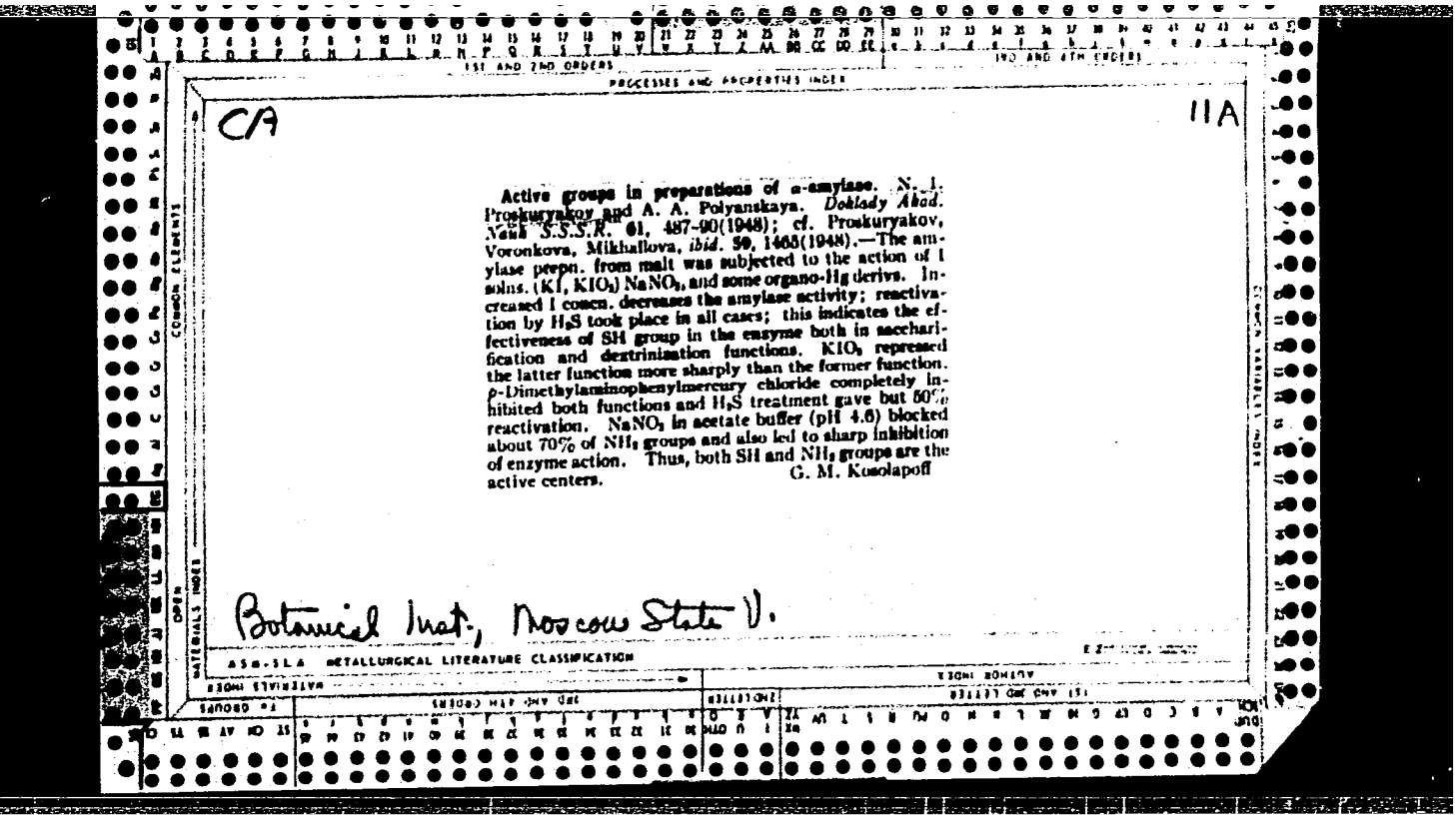
Proskuryakov, N. I. "The value of ferments in the milling-bread-baking industry," In sy,posium: Biokhimiya kul't. rasteniy, Vol. VIII, Moscow-Leningrad, 1948, p. 653-85 - Bibliog: p. 683-85

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

CA

Active groupings in β-amylase preparations. N. I. Proskuryakov, V. Ya. Voronkova, and E. S. Mikhlina. *Doklady Akad. Nauk S.S.S.R.* 59, 1465-7(1948); cf. C.A. 43, 2008.—The activity of β-amylase is due to the presence of free SH groups in the mol., and enzyme inhibitors may act by interfering with the functions of these groups (by oxidation or other means). Variations in activity of β-amylase preps. from various sources may be attributed to the presence to a greater or lesser extent of these groupings. Artificial inhibitions may be carried out with I, iodoacetate, or $NaNO_2$ thus: 10 ml. of a soln. contg. 10 mg. of the air-dried β-amylase (from soybean) prepn. is treated with 3 ml. of the inhibitor soln. After 30-min. refrigeration, free I is removed with 0.01 *N* $Na_2S_2O_3$ and the enzyme is pptd. with $(NH_4)_2SO_4$. The centrifuged ppt. in 10 ml. water is treated with 2% starch soln. and phosphate buffer to pH 5.56. After 30 min. at 40°, the maltose is detd. The SH groups are detd. iodometrically. With I (in NaI) as inhibitor (concn. from 5.0×10^{-4} to 2.5×10^{-3} *M*) loss of activity is paralleled by decrease in the percentage of free SH groups. However, whereas loss of activity due to oxidation of SH groups may be largely restored by treatment with H_2S (presumably by reduction of sulfide linkages), higher concns. of I result in a proportion of deactivation which is not reversible in a similar manner. This is due to direct introduction of I into the tyrosine units of the β-amylase. Loss of activity is also dependent on pH, being greatest under acid conditions. With iodoacetate, the degree of deactivation is more dependent on the concn. of inhibitor: thus with a 0.01 *M* concn. there is no deactivation, whereas with a 0.1 *M* concn. the activity is only 19.2% of the original. It can also be shown that deamination of the free NH_2 groups with 1.0 *M* HNO_2 does not result in any substantial loss of activity after 24 hrs. B. A.

Moscow State U.



CA

11A

Active groups in preparations of α-amylase. N. I. Proskuryakov and A. A. Polyanskaya. *Doklady Akad. Nauk S.S.S.R.* 61, 487-90(1948); cf. Proskuryakov, Voronkova, Mikhailova, *ibid.* 59, 1465(1948).—The amylase prepn. from malt was subjected to the action of I salts. (KI, KIO_3) $NaNO_3$, and some organo-Hg derivs. Increased I concn. decreases the amylase activity; reactivation by H_2S took place in all cases; this indicates the effectiveness of SH group in the enzyme both in saccharification and dextrinization functions. KIO_3 repressed the latter function more sharply than the former function. *p*-Dimethylaminophenylmercury chloride completely inhibited both functions and H_2S treatment gave but 50% reactivation. $NaNO_3$ in acetate buffer (pH 4.6) blocked about 70% of NH_2 groups and also led to sharp inhibition of enzyme action. Thus, both SH and NH_2 groups are the active centers.

G. M. Kosolapoff

Botanical Inst., Moscow State U.

USSR/Medicine - Amylase, Alpha- 1 Aug 49
Anaerobes, Thermo-
phyllic

"Some Properties and Active Groups in Preparations of Thermophyllic Anaerobes of Alpha-Amylase," N. I. Proskuryakov, M. V. Dmitriyevskaya, Inst of Bot, Moscow State U imeni M. V. Lomonosov, 3½ pp

"Dok Ak Nauk SSSR" Vol LXVII, No 4

Describes method of preparing a dry enzyme from a culture of the themophyllic anaerobe, Clostridium Pasterianum. Discusses relation of its activity to temperature, to concentration of organic mercury compound used as an inhibitor, and to time of a [redacted]

3/50X68

PA 3/50X58

USSR/Medicine - Amylase, Alpha- (Contd) 1 Aug 49

zivrite's action. Data established its high amylolytic activity, relation of its thermostability to presence of hydrocarbon components, and fact that it belongs to sulfhydril group of enzymes. Submitted by Acad A. I. Oparin 6 Jun 49.

[redacted]

3/50X68

PROSKURYAKOV, N. I.

PROSKURYAKOV, N.I.

Belozerskiĭ, A. N., and Proskuryakov, N. I.: Prakticheskoe rukovodstvo po biokhimii rasteniĭ (Practical Handbook of Plant Biochemistry). Moscow: Soviet Sci. 1951. 387 pp.

(1)

CA

Oxidative enzymes of the acorn. N. I. Prokuryakov and M. A. Suetina (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 77, 443-5(1951).—The activity of catalase exists in both ripe and healthy acorns, as well as in dried, spotty specimens, but the latter show some 100% higher activity than the former. Peroxidase and polyphenoloxidase are largely concentrated in the embryonic part of the acorn. All 3 enzymes show a gradual increase of activity as the acorn sprouts and grows (20 day expt.). No significant change of the content of enzymes occurs in storage from December to March, at 0-3°.

G. M. Kosolapoff

[illegible], M. I.

Grain

"Biochemistry of grain." Reviewed by M. I. Proskuryakov. Biokhimiia, 17, no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1953, Uncl.

1. PROSKURYAKOV, N. I.; KHOLOPOVA, L. S.

2. USSR (600)

4. Ascorbic Acid

7. Interaction of ascorbic acid with plant amylases of various origins. Biokhimiia 17 no. 5 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

1. PROSKURYAKOV, N. I. and MOSOLOVA, I. M.

2. USSR(600)

4. Peas

7. Dynamics of glutathione during the germination of peas. Dokl.AN SSSR 87 no. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

PROSKURYAKOV, N.I.:VEYNOVA, M.K.

Relation of fermentability to oxidation-reduction of glutens. Doklady Akad. nauk SSSR 87 no. 6:1039-1042 21 Dec 1952. (CLML 23:5)

1. Presented by Academician A. I. Oparin 23 June 1952. 2. Moscow State University imeni M. V. Lomonosov.

USSR

Carbohydrate-phosphorus metabolism in embryos and endosperms of winter wheat during the process of vernalization. N. I. Proskuryakov and N. B. Strazhevskaya (M. V. Lomonosov [illegible] Moscow). *Biokhim. Zerna, Akad. Nauk S.S.S.R., Sbornik* 2, 147–60(1954).—Moistened wheat grains maintained at a low temp. (2–3°) exhibit changes in the biochem. compn. In the endosperm the starch content declines while sucrose rises; a similar rise is observed in the embryo proper. In specimens vernalized at 0° phosphorolysis apparently predominates over amylolysis, while in specimens kept at 2–3° the content of phytin and acid-sol. P declines along with a rise of inorg. P; this was particularly noted in the embryos proper. While ascorbic acid is absent in the endosperm, it increases considerably in the embryos at 2–3° and a lesser increase at 0°.

G. M. Kosolapoff

PROSKURYAKOV, N.I.

USSR.

Absorption of enzymes by wheat flour gluten. N. I. Proskuryakov and E. S. Khromova (M. V. Lomonosov Moscow State Univ.). *Biokhimiya* 20, 193-7(1955).—Gluten was removed from wheat flour by washing with H_2O. Washings were evapd. to dryness by several methods, finely ground, tested for N content and then for β-amylase, catalase, peroxidase, polyphenoloxidase, invertase, dehydrase, and proteolytic enzymes. β-Amylase, catalase, polyphenoloxidase and proteolytic enzymes are adsorbed from the flour by glutens prepd. the usual way. Some differences in the enzyme adsorption appear with the different methods used in drying the washed-out gluten, which is equally true of its enzyme preservative properties. More of the catalase remains in the washed flour than is adsorbed by the gluten, while the proteolytic enzymes are almost completely removed from the flour by the washed-out gluten.

B. S. Levine

PROSKURYAKOV, N.I.

USSR/Biology - Biochemistry

Card 1/1 Pub. 22 - 36/54

Authors : Proskuryakov, N. I., and Nikiforovskaya, S. A.

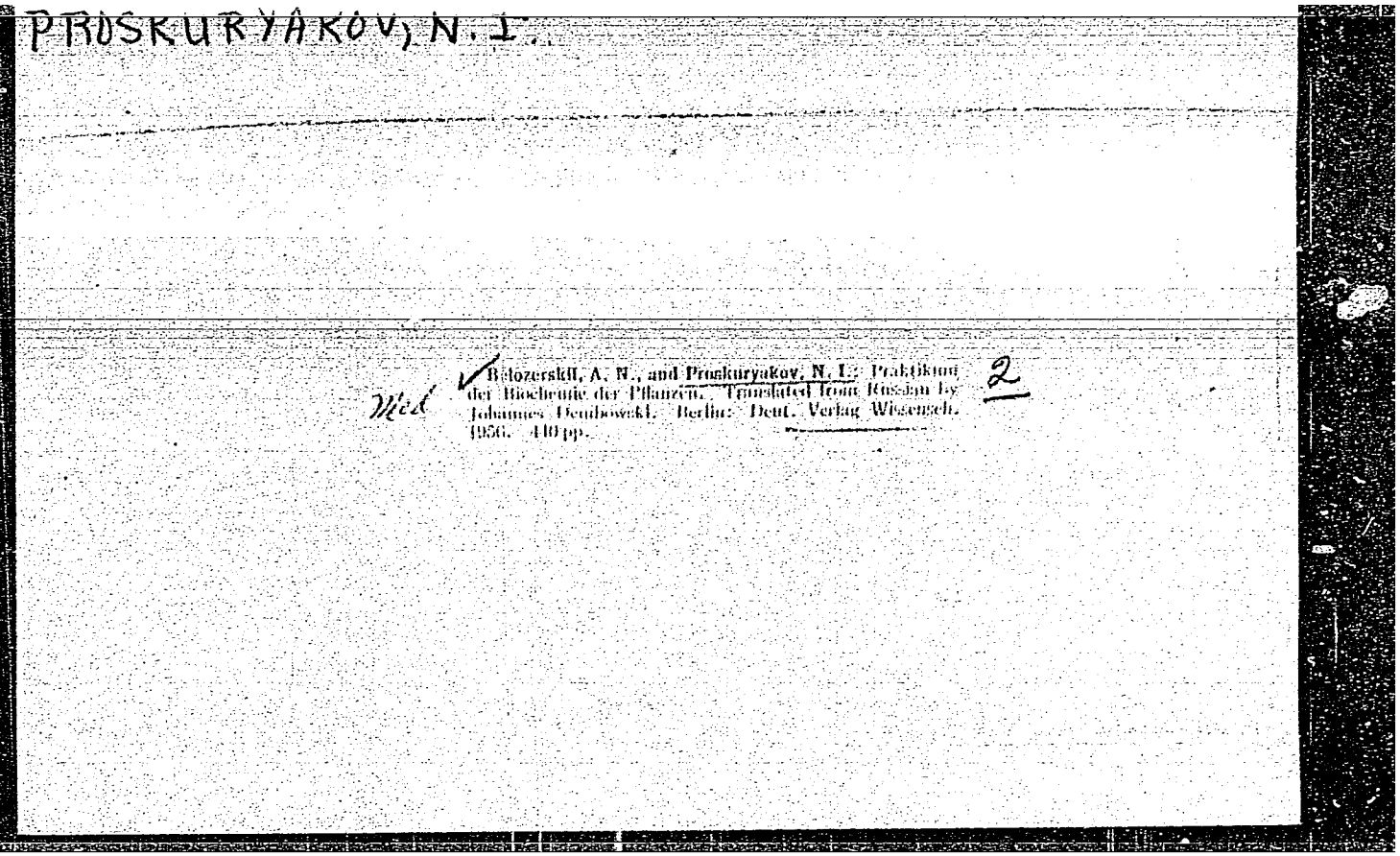
Title : The activity of amylase on the ripening and sprouting processes of wheat seeds

Periodical : Dok. AN SSSR 102/5, 989-991, Jun 11, 1955

Abstract : Experiments were conducted with purified alpha and beta amylases separated during the ripening and sprouting of wheat seeds for the purpose of establishing the connection between the activity of the amylases and their content of reactive groups (SH-groups). Results obtained are described. Eight references: 4 USSR,2Swiss and 2 German (1926-1951). Tables.

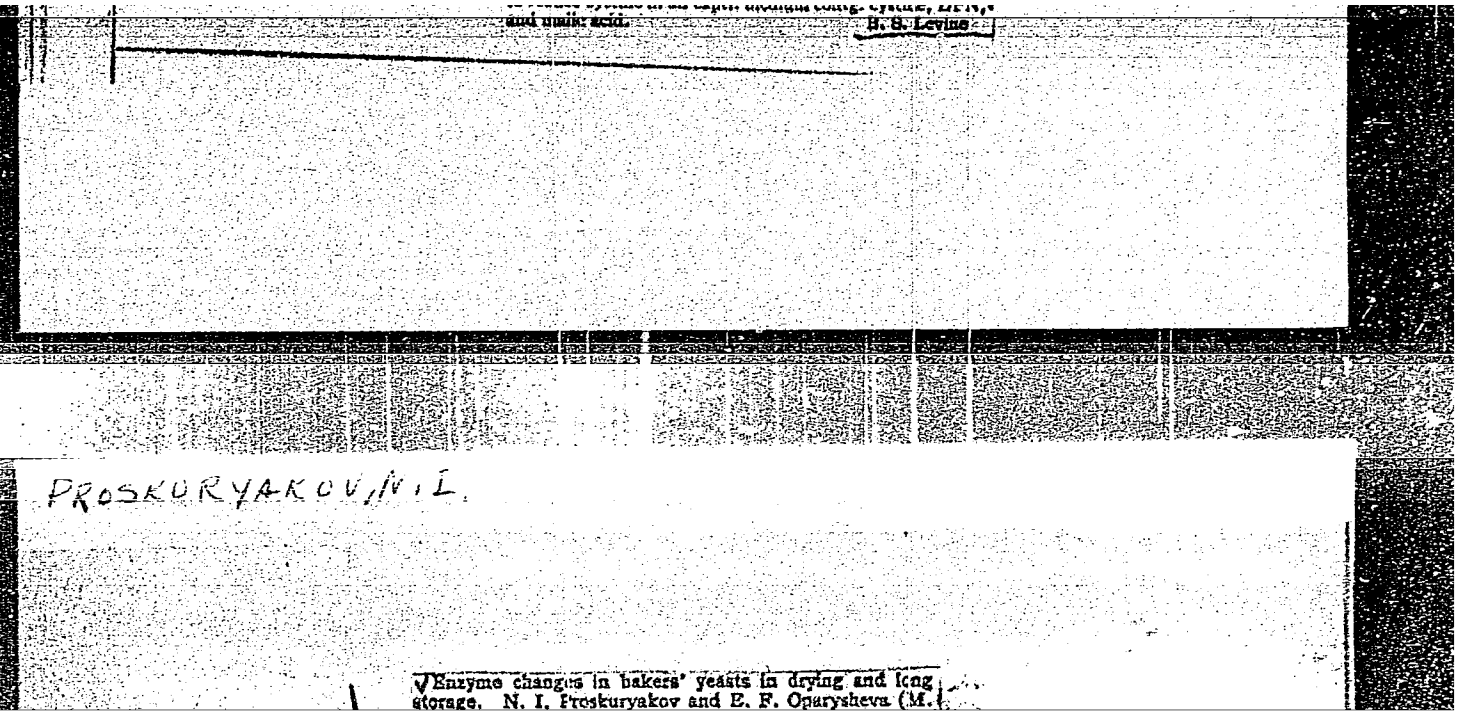
Institution : The M. V. Lomonosov State University, Moscow

Presented by : Academician A. I. Oparin , March 1, 1955



PROSKURYAKOV, N.I.

The cystine reductase of bakers' yeast and of peas. N. I. Proskuryakov and I. D. Buachidze (State Univ., Moscow). *Biokhimiya* 21, 799-805(1956).—The results of the expts. showed that in compressed bakers' yeast and in the seeds of the pea plant enzyme systems were present which brought about the reduction of cystine. The reduction was catalyzed by the enzymes by the direct action of the reduced diphosphopyridine nucleotide (DPN). This explained the complete loss of activity of this enzyme following prolonged dialysis. The reduction of cystine proceeded at a greater rate under anaerobic conditions, but it could take place in the presence of air. The reduction of cystine by the exts. of the seeds of the pea plant was activated by the addn. of malic acid and glucose-1-phosphate, which acted as H donors. The partially purified cystine reductase, obtained by the pptn. of the phosphate ext. of the seeds of the pea plant with an 80% soln. of acetone in the cold, possessed the power to reduce cystine in an anti. medium contg. cystine, DPN.



and malic acid. B. S. Levine

PROSKURYAKOV, N. I.

Enzyme changes in bakers' yeasts in drying and long storage. N. I. Proskuryakov and E. F. Oparysheva (M.

20-4-42/61

AUTHOR: PROSKURYAKOV,N.I., LARINA,M.A.

TITLE: The Influence of Restoring Agents on the Glutinant. (Deystviye vosstanavlivayushchikh agentov na kleykovinu, Russian)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 4, pp 869 - 872 (U.S.S.R.)

ABSTRACT: Numerous functional groups which form the particles of the albumin molecule are known to play an important part in the modifications of the structure of proteins. Frequently the activity of a great number of enzymes, which take part in the albumin-, fat-, and carbohydrate-transformation, is associated with the presence or lack of some groups. Among them sulphydryl and disulphide groups occupy a special position. In the living organism these groups can belong to easily soluble thiol compounds, e.g. to the reduced and oxidized glutathione, cystine and cysteine; they can also form parts of the molecules of different albumins, among them also enzymes. The relation of the groups SH and S-S in gluten and proteins soluble in water can be of an essential importance for the qualities of wheat and the sorts of flour obtained from them. By means of modern polarographical methods it has become possible only recently to ascertain the content of SH-groups in the gluten and in water soluble proteins from 13 sorts of wheat. The modification capacity

Card 1/3

The Influence of Restoring Agents on the Glutinant. [redacted] 20-4-42/61

of the wheaten flour gluten under the influence of different reducing substances was demonstrated by many scientists. Adding very small quantities of cysteine or glutathione is known to lead to a fast modification of the physical properties of the gluten. Proskuryakov and Veynova had ascertained that gluten which was treated with H_2S, sodium hydrosulfide, ascorbic acid, and cysteine beforehand, was subjected to a more intense proteolysis after an external addition of papain than without such treatment in the control sample. These modifications of gluten, however, were computed indirectly. Therefore it was interesting to find out whether any noticeable modification in the SH-group content of the gluten proteins, which had been treated with reducing reagents before, take place. In the experiment the gluten of wheat was treated in an acetous solution or on the occasion of mixing doughs by introducing the reducing reagents and then the gluten was washed out. The solutions and balls of mixture were kept for different periods either at 25° or at 0°. Gluten then was thoroughly cleaned, recoagulated and dissolved once more. The gluten was analyzed for different aspects, the SH-group was determined, hydrochloric cysteine was added to the mixture. From schedule 1 it becomes evident that the gluten preparations after cysteine treatment contained larger quantities of SH-groups than the control samples which were not treated. Moreover, gluten solutions were treated with SH_2 for a short period. Results

Card 2/3

The Influence of Restoring Agents on the Glutinant. [redacted] 20-4-42/61

showed that SH_2 is an effective reducer of gluten albumins, the quantity of disclosed SH-groups obviously depending on the duration of treatment with SH_2 In furhter experiments the efficacy of the sodium hydrosulphide was tested. Together with the rising of its concentration its reducing properties increased considerably and by far exceeded; the influence of the two reducers mentioned before. Ascertaining the influence of the ascorbic acid in different concentrations was of special interest. Results show that ascorbic acid is a highly reducing agent for proteins, especially under anaerobic conditions. Thus, the modifications in the gluten proteins treated by several reducers are accompanied by an increase of the content of the sulphydryl groups in gluten preparations. This is the proof of the existence of a considerable quantity of reduceable disulphide compounds in the gluten. (1 schedule, 3 citations from Slav publications)

ASSOCIATION: Chair for Plant Biochemistry of thr National University "LOMONOSOV"
PRESENTED BY: A.I.OPARIN, Member of the Academy.
SUBMITTED: 11.12.1956
AVAILABLE: Library of Congress
Card 3/3

PROSKURYAKOV, N.I.; LARINA, M.A.

Mechanism of the improving effect of potassium bromate in the baking of bread [with summary in English]. Biokhimiia 23 no.1:101-105 Ja-F '58. (MIRA 11:3)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(POTASSIUM BROMATE) (DOUGH)

BISHA, T.; ZUYEVA, Ye.S.; PROSKURYAKOV, N.I.

Cystine reductase of wheat embryos. Nauch.dokl.vys.shkoly; biol.nauki no.1:153-156 '59. (MIRA 12:5)

1. Rekomendovana kafedroy biokhimii rasteniy Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonsova.
(CYSTINE REDUCTASE) (WHEAT)

PROSKURYAKOV, N.I.; PETROCHENKO, Ye.I.

Oxidation of ascorbic acid by various processed grain porducts. Izv.vys.ucheb.zav.; pishch.tekh. no.5:38-41 '59. (MIRA 13:4)

1. Moskovskiy gosudarstvennyy universitet, kafedra biokhimii rasteniy.

(Cereal products) (Ascorbic acid)

PROSKURYAKOV, N.I.; AUERMAN, T.L.

Oxidation of ascorbic acid by oxidase systems of wheat flour. Biokhimiia 24 no.2:317-322 Mr-Ap '59 (MIRA 12:7)

1. The Faculty of Biology and Soil Science, the State University, Moscow.
(VITAMIN C,
oxidation by oxidase in wheat flour (Rus))
(OXIDASES,
in wheat flour, oxidation of vitamin C (Rus))
(FLOUR,
oxidation of vitamin C by oxidase in wheat flour (Rus))

PROSKURYAKOV, N.I.; NUZHDINA, T.N.

Proteins of wheat germ and their enzymatic activity. Nauch.dokl. vys.shkoly; biol.nauki no.2:148-152 '60. (MIRA 13:4)

1. Rekomendovana kafedroy biokhimii rasteniy Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.
(WHEAT GERM) (ENZYMES)

ZUYEVA, Ye.S.; PROSKURYAKOV, N.I.

Glutathions reductase system of pea seeds at various ripening stages. Biokhim. zer. i khlebopech. no.7:83-92 '64.

Glutathione reductase system of pea seeds at various germination stages in the darkness and in the light. Biokhim. zer. i khlebopech. no.7:93-100 '64. (MIRA 17:9)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni Lomonosova.

ASRIYAN, I.S.; ZUYEVA, Ye.S.; PROSKURYAKOV, N.I. [deceased]

Enzymatic reduction of disulfide bonds in low molecule and protein substances during germination and maturation of wheat seeds. Prikl. biokhim. i mikrobiol. 1 no.5:500-504 S-O '65. (MIRA 18:11)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universitata imeni M.V. Lomonosova.

PROSKURYAKOV, N.I.; ZUYEVA, Ye.S.

Enzymatic reduction of disulfide bonds in proteins and low-molecular substances of wheat flour. Dokl. AN SSSR 158 no.1: 232-234 S-O '64 (MIRA 17:8)

1. Moskovskiy gosudarstvennyy universitet. Predstavleno akademikom A.I. Oparinym.

PROSKURYAKOV, N.I.; LOSEVA, L.P.

Lycolytic enzymes of wheat germ and their fractionation. Nauch. dokl. vys. shkoly; biol. nauki no.3:157-162 '63. (MIRA 16:9)

1. Rekomendovana kafedroy biokhimii rasteniy Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(Wheat germ) (Enzymes)

PROSKURYAKOV, N.I.; LYUBIMOVA, Ye.V.

Interaction of disulfides and thiols with the protein complex of wheat flour. Izv. vys. ucheb. sav.; pishch. tekh. no.2:36-39 '63. (MIRA 16:5)

1. Moskovskiy gosudarstvenny universitet imeni Lomonosova, kafedra biokhimii rasteniy.

(Wheat—Analysis and chemistry) (Sulfides) (Proteins)

PROSKURYAKOV, N.I.; BABINTSEVA, M.B.

Enzyme synthesis and its inhibition by antibiotics in cotyledons of germinating peas. Dokl. AN SSSR 146 no.2:464-466 S '62. (MIRA 15:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova. Predstavleno akademikom A.I. Oparinym.

(ENZYMES) (GERMINATION)

PROSKURYAKOV, N.I.

"Wheat gluten" by A.V.Vakar. Reviewed by N.I.Proskuriakov.
Biokhimiia 27 no.3:569-570 My-Je '62. (MIRA 15:8)
(GLUTEN) (VAKAR,A.V.)

PROSKURYAKOV, N.I.; MEN'SHIKH, L.K.

Extracellular glutathione reductase of Escherichia coli.
Mikrobiologiia 31 no.1:5-9 Ja-F '62. (MIRA 15:3)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni Lomonosova.
(ESCHERICHIA COLI)
(GLUTATHIONE REDUCTASE)

AGATOVA, A.I.; PROSKURYAKOV, N.I.

Sulfhydryl groups and disulfide bonds in wheat flour proteins. Biokhimiia 27 no.1:88-93 Ja-F '62. (MIRA 15:5)

1. Faculty of Biology and Soil Sciences, State University, Moscow.
(FLOUR) (MERCAPTO GROUP) (CHEMICAL BONDS)
(PROTEINS)

PROSKURYAKOV, N.I.; TOVAROVA, I.I.

Characteristics of proteolysis in germinating seeds of leguminous plants. Nauch. dokl. vys. shkoly; biol. nauki no.3:155-158 '61.
(MIRA 14:7)

1. Rekomendovana kafedroy biokhimii rasteniy Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(LEGUMES) (GERMINATION) (PROTEINS)

PROSKURYAKOV, N.I.; RODIONOVA, I.V.

Enzyme activity of water soluble proteins of the wheat germ. Biokhim. zerna no.5:108-120 '60. (MIRA 14:5)

1. Biologo-pochvennyy fakul'tet Moskovskogo Gosudarstvennogo universiteta.
(Enzymes) (Proteins) (Wheat germ)

ZUYEVA, Ye.S.; IVANOVA, V.P.; PROSKURYAKOV, N.I.

Glutathione reductase in pea seeds. Biokhim.zerna no.5:248-255 '60.
(MIRA 14:5)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta.
(Glutathione reductase) (Peas)

ZUYEVA, Ye.S.; MARKOSYAN, L.S.; PROSKURYAKOV, N.I.

Chromatography of proteins on a calcium phosphate gel. Biokhimiia 26 no.2:209-211 Mr-Ap '61. (MIRA 14:5)

1. Chair of Plant Biochemistry, State University, and Institute of Biochemistry, Academy of Sciences of the U.S.S.R., Moscow.
(PROTEINS) (CHROMATOGRAPHIC ANALYSIS)

PROSKURYAKOV, N. I., AUERMAN, T. L., and ZACLODINA, F. I. (USSR)

"The Nature of the Action of Ascorbic Acid as an Effective Improver in Bread Baking."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

ZUYEVA, Ye.S.; PROSKURYAKOV, N.I.

Glutathione reductase and cystine reductase in germinating and ripening pea seeds. Biokhimiia 25 no.5:897-900 S-O '60. (MIRA 14:1)

1. Faculty of Biology and Soil Science, State University, Moscow.
(SEEDS) (GLUTATHIONE REDUCTASE)
(CYSTINE REDUCTASE)

AUTHOR: Proskuryakov, N.K., Engineer. SOV/97-4-1/11

TITLE: Further Progress in the Manufacture of Precast Reinforced Concrete. (Obespechit' dal'neyshiy tekhnicheskiy progress v proizvodstve sbornogo zhelezobetona).

PERIODICAL: Beton i Zhelezobeton. 1958 Nr. 4. pp. 121-125 (USSR).

ABSTRACT: An all-Soviet Congress on building called by the TsK KPSS and Soviet of Ministers of U.S.S.R. summarized the activities of the building industry since the previous congress and the author is evaluating the main issues discussed. The total output of precast reinforced concrete factories has risen four times and reached 16 million m^3 towards the end of 1957. Table 1 gives the output of the precast reinforced concrete industry. N. Ya Kozlov's continuous method of the manufacture of large reinforced concrete products is an improvement from an economical point of view. In 1957 the catalogue of standard precast reinforced concrete products (II 03-02) was published which is a handbook for factories producing building units for blocks of flats and residential buildings. According to the TsK KPSS Soviet of Ministers of U.S.S.R. the total output of these factories in the period 1955/57 was 13.5 million m^3 of building products. In the same

Card 1/2

SOV/97-4-1/11

Further Progress in the Manufacture of Precast Reinforced Concrete.

period 286 factories have been provided with equipment for precast reinforced concrete and aerated concrete products. The output of these factories is 9,620,000m^3. Table 2 gives values obtained from VNIIZhelezobeton on the average output per m^3 of curing chamber per year. Table 3 gives values of one production plant manufacturing multi-hollow floor slabs. In 1957 the output of many factories of precast concrete reached 600 to 800 varieties of products per year. Table 4 gives quantities of precast reinforced concrete as a proportion of the building work costing one million ruhles for 1950/1955 and the proportion envisaged for 1960/65.

There are 4 tables.

1. Reinforced concrete--Production

PROSKURYAKOV, N.K.

A creative failure in large-panel housing construction. Bet. i zhel.-bet. 8 no.2:51-52 F '62. (MIRA 16:5)
(Moscow--Apartment houses) (Precast concrete construction)

PROSKURYAKOV, M.K., inzh.

Secure further technical progress in producing precast reinforced concrete. Bet.i zhel.bet. no.4:121-125 Ap '58. (MIRA 11:4)
(Precast concrete)

PROSKURYAKOV,N.K.

Developments in the manufacture of large wall blocks made of light weight concretes for housing, school, and hospital construction Sbor. mat. o nov. tekh. v stroi. 17 no.4:1-5 '55. (MLRA 8:6)
(Building blocks) (Lightweight concrete)

97 - 1 - 1/10

AUTHOR: PROSKURYAKOV, N.K., Engineer

TITLE: Problems in the Production and Use of Assembled Reinforced Concrete (Ocheradnye zadachi proizvodstva i primeneniya sbornogo zhelezobetona)

PERIODICAL: Beton I Zhelezobeton, 1957, No. 1., pp. 1 - 4 (U.S.S.R.)

ABSTRACT: 1956 showed a further development in the mass production of reinforced concrete for building purposes as demonstrated by the following statictics: production output in 1955 was approximately 5 mil.m^3, in 1956 it was 9 mil.m^3. The estimated capacity on January 1, 1957 was increased to 12 1/2 mil.m^3. Planning organisations based new types of assembled reinforced concrete on the revised and improved standards. The nomenclature for reinforced concrete and prestressed concrete was brought up-to-date. Savings in steel and timber are shown (a single storey industrial building erected according to Гос-Строй СССР was built with 30 - 35% less materials than buildings erected according to the old method.) Architectural competition for improved planning of housing and public buildings resulted in a reduction of 10 - 20% of dead weight in buildings, 10 - 15% saving in timber, and up to 40% saving in steel. Precast reinforced concrete constructions manufactured at present in factories mainly catering to the Urals, West and East Siberia, Central Asia and Kazakhstan

97 - 1 - 1/10

TITLE: Problems in the Production and Use of Assembled Reinforced Concrete (Ocheradnye zadachi proizvodstva i primeneniya sbornogo zhelezobetona)

should increase their output to a greater extent to fulfill the proposed plan. In Moscow, for instance, the ГлавМосстрой works increased their output up to 63% in 1956 (compared to a 43% output in 1953.) Labor output increased 100%. Prices for reinforced concrete dropped 25% in 1956. This was due to improved mechanization, further specialisation and more effective production methods. To fulfil the 1960 plan the annual increase in output should amount to 3 1/2 mil. m^3. New factories with a total capacity of 21 mil. m^3 must be built. Planning centers, according to this year's program , should complete 2.200 standard projects. The author stresses the fact that the quality of products manufactured in the USSR is lower than that of products manufactured in the West. In 1956 approx. 50% of the total output of reinforced concrete products (i.e. 4 1/2 mil. m^3) was used for housing purposes. The necessity of mass produced lightweight reinforced

Card 2/3

concrete and the application of assembly methods is stressed. It is estimated that structural units will weigh 17% less, and foundation units up to 50% less.

ASSOCIATION: ---

PRESENTED BY: ---

SUBMITTED: ---

AVAILABLE: Library of Congress

Card 3/3

PROSKURYAKOV, N.K.

SOV/97-59-1-16/18

AUTHOR: None given

TITLE: Information from the Commission on Prestressed and Precast Reinforced Concrete Constructions (V Komissii po predvaritel'no napryazhennym i sbornym zhelezobetonnym konstruktsiyam)

PERIODICAL: Beton i Zhelezobeton, 1959, Nr 1, p 44 (USSR)

ABSTRACT: In December 1958 a session of the Commission on Prestressed and Precast Reinforced Concrete Construction was held in Moscow. This Commission was appointed by the Academy of Building and Architecture of USSR (Akademiya stroitel'stva i arkhitektury SSSR). The following papers were read:
Programmes and Planning for 1959/1965 - N.K. Proskuryakov, Director of the Department of Concrete and Reinforced Concrete Constructions of Gosstroy of USSR;
Report on the Commission's Activities in 1958 and Plans for 1959 - V.V. Mikhaylov and A.A. Gvozdev, Members of ASiA SSSR;
Reports on the Third International Congress on Prestressed Precast Reinforced Concrete - S.S. Davydov, Vice-President of ASiA SSSR; V.V. Mikhaylov, Member ASiA SSSR; and

Card 1/2

SOV/97-59-1-16/18

Information from the Commission on Prestressed and Precast Reinforced Concrete Constructions

A.P. Vasil'yev and R.G. Shishkin, Candidates of Technical Sciences - on methods of designing and casting pretensioned reinforced concrete constructions.

Card 2/2

PROSKURYAKOV, N.K.

Development in the production of large blocks for wall construction made of light concretes. Gor.khoz.Mosk. 29 no.1:4-7 J '55. (MLRA 8:3)

1. Nachal'nik Upravleniya promyshlennosti stroitel'nykh detaley Mosgorispolkoma.
(Building blocks)

MIKHAYLOV, V.V.; PEREL'SHTEYN, N.L.; PROSKURYAKOV, N.K.; UDOD, V.Ya., redaktor izdatel'stva; GUSEVA, S.S., tekhnicheskiy redaktor

[Prestressed reinforced concrete in foreign countries; based on the Second International Congress in Amsterdam] Napriazhenno armirovannyi zhelezobeton za rubezhom; po materialam vtorogo Mezhdunarodnogo kongressa v Amsterdame. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1956. 61 p. (MLRA 9:8)

1. Moscow. TSentral'nyy institut informatsii po stroitel'stvu.
(Amsterdam--Prestressed concrete--Congresses)

PROSKURYAKOV, N.K., inzhener.

Urgent tasks in producing and using precast reinforced concrete.
Bet.i zhel.-bet.no.1:1-4 Ja '57. (MLRA 10:3)
(Precast concrete)

L 9246-66 EWT(l)/EWP(e)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/JG/GG/WH

ACC NR: AP5022740 SOURCE CODE: UR/0181/65/007/009/2853/2856

AUTHOR: Agayev, A. N.; Venetskaya, M. M.; Zablotskiy, G. A.; Myl'nikova, I. Ye.; Pisarev, R. V.; Proskuryakov, O. B.

ORG: Institute of Semiconductors AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

TITLE: Investigation of ferrite-garnet single crystals with vanadium

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2853-2856

TOPIC TAGS: single crystal, vanadium, garnet, ferrite, absorption spectrum

ABSTRACT: Some data are given from preliminary studies on single crystals of garnets which contain vanadium ions. Specimens of $(Bi_{3-2x}Ca_{2x})[Fe_2](Fe_{3-x}V_x)O_{12}$ single crystals were grown, using Bi_2O_3, Fe_2O_3, V_2O_5 and $CaCO_3$ as initial components. The best crystals were those with $x = 1.33$ and dimensions of 5-7 mm. Measurements of magnetization from room temperature to the Curie point show that the composition of the synthesized crystals corresponds to that of the initial charge. Curves are given for $2\Delta H$ as a function of temperature along crystallographic axes [111], [110] and [100] in plane (110) for a garnet crystal with $x = 1.33$. Spectral studies of thin plates (about 5 μ) show an absorption maximum at about 0.87 μ and a second weaker maximum at about 0.69 μ, with transparency in the visible and infrared regions. The

Card 1/2

L 9246-66

ACC NR: AP5022740

6

authors are grateful to G. A. Smolenskiy and A. G. Gurevich for directing the work. Orig. art. has: 2 figures, 1 table.

SUB CODE: 20,07/ SUBM DATE: 09Apr65/ ORIG REF: 002/ OTH REF: 007

Card 2/2

AGEYEV, A.N.; VENETSKAYA, M.M.; ZABLOTSKIY, G.A.; MYL'NIKOVA, I.Ye.; PISAREV, R.V.; PROSKURYAKOV, O.B.

Study of single crystals of ferrites-garnets with vanadium. Fiz. tver. tela 7 no.9:2853-2856 S '65. (MIRA 18:10)

1. Institut poluprovodnikov AN SSSR, Leningrad.

EXCERPTA MEDICA Sec 11 Vol 11/11 O. R. L. Nov 58

2061. MILLING SHAVINGS OF THE CARTILAGE USED IN PLASTIC SURGERY IN OTORHINOLARYNGOLGY(Russian text) - Proskuryakov S. A. Novosibirsk - VESTN. OTO-RINO-LARING. 1958, 20/1 (13-16) Tables: Ills. 1

In repairing the bridge of the nose as well as other defects of the face, the author since 1950, has used milling shavings of a rib's cartilage. The shavings are introduced through the needle of a revolver syringe, constructed by the author. The rib's cartilage is taken from the patient or from a cadaver. Bone shavings were also used (2 patients) but the best results were obtained with cartilaginous shavings. Fragmentation of the cartilage increases its viability. The operation is bloodless and is performed in out-patient departments.

LUKOV, B.N., prof. (Kuybyshev); PETROV, V.I., dotsent (Moskva); PAVLENKO, T.M., aspirant (Moskva); YERMOLAYEV, V.G., prof. (Leningrad); ADO, A.D., prof.; VOVSI, M.S., prof.; YERMOLAYEV, V.G., prof. (Leningrad); KUPRIYANOVA, N.A. (Kazan'); PETROV, G.I. (Moskva); DOLGOPOLOVA, A.V. (Moskva); SAKHAROV, P.P., prof.; BYKHOVSKIY, Z.Ye., prof.; MIN'KOVSKIY, prof. (Chelyabinsk); KHMEL'CHONOK, I.P. (Irkutsk); TEMKIN, Ya.S., prof. (Moskva); MIN'KOVSKIY, A.Kh., prof. (Chelyabinsk); MIL'SHTEYN, T.N., doktor med.nauk (Leningrad); TRUTNEV, V.K., zasluzhennyy deyatel' nauki, prof.; TSYRESHKIN, B.D., kand.med.nauk (Moskva); SOBOL', I.M., prof. (Stavropol'); TURIK, G.M. (Moskva); FRENKEL', M.M. (Moskva); MAZO, I.L.; POKRYVALOVA, K.P.; PROSKURYAKOV, S.A., prof.; ATKARSKAYA, A.A., prof.; GOL'DFARB, I.V., prof. (Izhevsk); PORUBINOVSKAYA, N.M. (Moskva); RUDNEV, G.P., prof.; VOL'FSON, I.Z., prof. (Stalingrad); DOROSHENKO, I.T., prof. (Kalinin); ROZENFEL'D, M.O., prof. (Leningrad); SHUL'GA, A.O., prof. (Orenburg); MIKHLIN, Ye.G., prof.; TRET'YAKOVA, Z.V. (Moskva); MANUYLOV, Ye.N., prof. (Moskva); DOROSHENKO, I.T., prof. (Kalinin); YERMOLAYEVA, V.G., prof.

Speeches in the discussion. Trudy gos. nauch.-issl. inst. ukha, gorla i nosa no.11:79-87,129-146,179-186,233-248,311-333 '59.
(MIRA 15:6)

1. Chlen-korrespondent AMN SSSR (for Ado). 2. Direktor Moskovskogo gosudarstvennogo instituta ukha, gorla i nosa (for Trutnev).
(OTORHINOLARYNGOLOGY—CONGRESSES)

PROSKURYAKOV, S. A.

Pistol type injector for introduction of tissue into the organism. Vest. otorinolar., Moskva 13 no.4:73-74 July-Aug 1951. (CLML 21:1)

1. Professor. 2. Of the Clinic for Diseases of the Ear, Throat, and Nose, Novosibirsk Medical Institute.

PROSKURYAKOV, S.A., prof.

Expediency of early surgery in recurrent anginas in the acute stage. Trudy Novosib.gos.med.inst. 27:370-379 '57. (MIRA 12:9)

(TONSILS--DISEASES)

PROSKURYAKOV, S.A., prof. (Novosibirsk)

Milling shavings of rib cartilage used as a support in plastic otorhinolaryngological surgery [with summary in English] Vest. oto-rin. 20 no.1:13-16 Ja-F '58. (MIRA 11:3)

1. Iz kliniki bolezney ukha, gorla i nosa Novosibirskogo meditsinskogo instituta.
(FACIAL BONES, surg.
plastic, use of rib cartilage shavings for support (Rus)

PROSKURYAKOV, Sergey Anatol'yevich; KAZNACHEYEV, V.P., doktor med. nauk, prof., otv. red.; VOLOSHIN, G.D., red.

[Experience in the work of restorative surgery on the face and otorhinolaryngeal organs] Opyt raboty po vosstanovitel'noi khirurgii litsa i lor-organov. Novosibirk, Zapadno-Sibirskoe knizhnoe izd-vo, 1965. 197 p. (MIRA 18:4)

PROSKURYAKOV, S. A.

USSR/Medicine - Tissue Therapy Jul/Aug 51

"Revolver Syringe For Introducing Tissues Into the Organism," Prof S. A. Proskuryakov, Clinic of Ear, Throat, and Nose Diseases, Novosibirsk Med Inst

"Vest Oto-Rino-Laringol" Vol XIII, No 4, pp 73, 74

Does not use Acad Filatov and Dr Rumyanzev's technique of tissue implantation which is applied throughout the USSR, but prefers injection by syringe. Found Steyn and Onodi's [?] screw syringe for paraffin injections unsatisfactory in tissue therapy. Designed revolver syringe in which considerable pressure is exerted, so that dense tissue is pressed out in fine thread through the needle.

188T80

USSR/Medicine - Tissue Therapy Jul/Aug 51
(Contd)

Use in more than 1,000 cases at 8 Novosibirsk clinics proved that new syringe is satisfactory.

188T80

PROSKURYAKOV, S.A., professor

"Plastic surgery of defects of the face and neck using a Filatov pedicle graft." F.M. Khitrov. Reviewed by S.A. Proskuriakov. Vest. oto-rin. 17 no.5:84-85 S-O '55. (MLRA 9:2)
(FACE--SURGERY) (SKIN GRAFTING) (KHITROV, F.M.)

PROSKURYAKOV, S.I.

Results of the survey of the performance of the traction spiral gear drive of electric locomotives. Trudy TSNII MPS no.246:97-112 '62. (MIRA 16:2)
(Electric locomotives--Transmission devices)

PROSKURYAKOV, S.I., inzh.

Wear of the bevel gear teeth of electric locomotives. Vest. TSNII MPS 24 no.1:13-16 '65. (MIRA 18:6)

1. Ural'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta zhelezhodorozhnogo transporta Ministerstva putey soobshcheniya, Sverdlovsk.

L 23591-66 EWT(d)/FSS-2/EWT(l)/EWT(m)/EWP(w)/EEC(k)-2/EWP(v)/T-2/EWP(k)/EWA(h)/
ACC NR: AP6006601 EWG(m)-6 IJP(c) SOURCE CODE: UR/0317/65/000/008/0032/0039
EM/BC

AUTHOR: Proskuryakov, V. (Engineer, Lieutenant colonel, Candidate of technical sciences)

ORG: none

TITLE: Missiles used in aerial combat

SOURCE: Tekhnika i vooruzheniye, no. 8, 1965, 32-39

TOPIC TAGS: air to air missile, guided missile, air defense missile, air force tactic

ABSTRACT: The present article (based on information taken from the foreign press) discusses rockets and missiles, and guidance and fire control systems in popular terms. The article is chiefly devoted to a description of the use of intercept aircraft equipped with air to air missiles to destroy enemy aircraft. Orig. art. has: 5 figures, 4 photographs.

SUB CODE: 15/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 000

Card 1/1

PROSKURYAKOV, V.; KRAVCHUK, I.

Observations of telescopic meteors made at Kiev Astronomical Observatory in 1940. Publ.Kiev.astron.obser. no.3:77-83 '50. (Meteors) (MLRA 7:9)

PROSKURYAKOV, V.A.; [illegible], [illegible]; [illegible], [illegible]

Study of the high-molecular weight acids formed in the oxidation of Gdovsk oil shales. Zhur. prikl. khim. 38 no.4:936-9[illegible] Ap '65.
(MIRA 18:6)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

PROSKURYAKOV, V.A.; BROY-KARRE, G.V.

Oxidation of Kenderlyk shale with nitric acid. Trudy VNIIT no.12:5-10 '63. (MIRA 18:11)

L 11981-66 EWT(m)/T WE

ACC NR: AP6000685 SOURCE CODE: UR/0080/65/038/009/2078/2084

AUTHOR: Batalina, G. M.; Proskuryakov, V. A.

ORG: Leningrad Technological Institute imeni Lensovet (Leningradskiy tekhnologicheskiy institut)

TITLE: Investigation of the purification of petroleum products from sulfur

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 9, 1965, 2078-2084

TOPIC TAGS: petroleum, petroleum refining, petroleum product, oxidation, organic sulfur compound

ABSTRACT: The possibility of purifying directly distilled petroleum fractions of sulfur by oxidation with atmospheric oxygen in an alkaline medium under pressure was examined using Romashkin petroleum and an oxygen feed of 2 l/min kg. The effects of temperature, hydrocarbon: water ratio, alkali concentration, catalysts and reaction time on the oxidations were investigated. $CuCl_2$, which forms the active $Cu(OH)_2$ in the alkaline medium, proved to be a very effective catalyst for the oxidation under pressure of mercaptans, disulfides, cyclic, polycyclic and aliphatic sulfur compounds. Thiophene was stable under these test

Card 1/2 UDC: 665.53

L 11981-66

ACC NR: AP6000685

2

conditions. The organic sulfur compounds were completely separated from the 80-200° fraction, and 50% of the organic sulfur compounds were removed from the 200-300° kerosene fraction by oxidation in alkali under pressure. F. N. Yudina and A. P. Borygina took part in the experimental work. Orig. art. has: 6 tables and 1 figure.

SUB CODE: 07, 11/ SUBM DATE: 16Apr64/ ORIG REF: 003/ OTH REF: 003

HW

Card 2/2

PETEKHIN, V.M.; PROSKURYAKOV, V.A.

Oxidation of normal paraffinic hydrocarbons by atmospheric oxygen in an aqueous alkaline medium. Zhur.prikl.khim. 38 no.3:627-632 Mr '65. (MIRA 18:11)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta. Submitted April 8, 1964.

PROSKURYAKOV, V.A.; SOLOVEYCHIK, Z.V.

Oxidation of the Gdov shale in a n-aqueous alkaline medium. Zhur.prikl.khim. 38 no.3:632-638 Mr '65. (MIRA 18:11)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta. Submitted April 20, 1964.

BABEL', V.G.; PROSKURYAKOV, V.A.

Oxidation of "hydroxy acids" of the paraffin series by atmospheric oxygen. Zhur. prikl. khim. 38 no.5:1085-1090 My '65. (MIRA 18:11)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

BABEL', V.G.; PROSKURYAKOV, V.A.; ITSKOVICH, V.A.

Oxidation of higher monocarboxylic acids by atmospheric oxygen. Zhur. prikl. khim. 38 no.5:1178-1181 My '65. (MIRA 18:11)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

L 40170-66 EWT(1)/EWP(m)/EWT(m)/FCC/T WW/JW/JWD/GW

ACC NR: AP6020202 SOURCE CODE: UR/0056/66/050/006/1481/1490 9C

92

AUTHOR: Petrukhin, A. I.; Proskuryakov, V. A.

ORG: Institute of the Physics of the Earth, Academy of Sciences, SSSR (Institut fiziki zemli Akademii nauk SSSR)

TITLE: Temperature and concentration of charged particles behind the front of a strong shock wave in the air

SOURCE: Zh eksper i teor fiz, v. 50, no. 6, 1966, 1481-1490

TOPIC TAGS: electron temperature, shock wave, spectral line, electric discharge, charged particle, atmospheric shock wave, shock wave front

ABSTRACT: The electron temperatures and concentrations of charged particles behind the front of a strong shock wave in the air have been measured. The shock wave was produced by an electric discharge in a tube at initial pressures of 0.1, 0.2, and 0.5 mm Hg. The temperatures were determined from the relative and absolute intensities of the spectral line. The charge particle concentrations were determined from the Stark expansion of the H line. The temperature and concentration values determined are in good agreement with the equilibrium values of the quantities calculated from the shock-wave velocity. The maximum values of the electron temperatures are (60—70) x 10^3K for charged-particle concentrations of the order of (6—7)x10^{16} cm^{-3}

Card 1/2

L 40170-66

ACC NR: AP6020202

and of threshold wave-front velocities of the order of 45—50 km/sec. The oscillator strengths were measured for two nitrogen lines. For the NII line with a wavelength of λ = 4026.09 Å, the measured value is gf = 0.90. For the NIII line with a wavelength λ = 45.0.92 Å, the measured value is gf = 1.36 with a 10—15% accuracy. The authors thank I. Zel'manov for his valuable discussions and advice, and V. V. Pegaonv and V. I. Gazeleridi for their help in selecting and adjusting the system for measuring shock-wave velocities. Orig. art. has: 5 figures, 2 formulas, and 4 tables. [Based on authors' abstract] [NT]

SUB CODE: 20/ SUBM DATE: 19Jan66/ ORIG REF: 011/ OTH REF: 009

Card 2/2 MLP

PROSKURYAKOV, V.A

65-10-2/13

AUTHORS: Chistyakov, A.N., Korzhenevskaya, Ye.S. and Proskuryakov, V.A.

TITLE: On the Possibility of Separation of Resinous and Cutinised Components of Coals by the Flotation Method (O vozmozhnosti vydeleniya smolyanykh i kutinizirovannykh komponentov iz ugley metodom flotatsii)

PERIODICAL: Khimiya i Tekhnologiya Topliva i Masel, 1957, No.10, pp. 6 - 9 (USSR)

ABSTRACT: Separation of coals into micro-components by flotation was attempted. A coal corresponding in rank to gas coal (Table 1) was used for the experiments. The influence of particle size and nature of frothing and collecting agents were tested. The experimental results are given in Tables 2 - 7. It was found that the best results of petrographic separation (production of concentrates containing up to 22% of resinous and cutinised substances from the starting sample containing 9% of these substances) were obtained under the following conditions: frothing agent - pine oil; collecting agent - kerosene; particle size - 74 μ + 43 μ; temperature of the pulp 20 °C and intensity of mixing 2 100 r.p.m. There are 7 tables.

ASSOCIATION: Leningrad Technological Institute imeni Lensovet (Leningradskiy tekhnologicheskiy institut imeni Lensovet)

Card 1/2.

65-10-2/13

On the Possibility of Separation of Resinous and Cutinised Components of Coals by the Flotation Method

AVAILABLE: Library of Congress
Card 2/2

S/672/62/000/011/001/011
D403/D307

AUTHORS: Proskuryakov, V. A., Yakovlev, V. I. and Kurdyukov, O. I.

TITLE: Oxidation of oil shales with aerial oxygen

SOURCE: Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut pererabotki i ispol'zovaniya topliva. Trudy, no. 11, 1962. Khimiya i tekhnologiya topliva i produktov yego pererabotki, 20-27

TEXT: The oxidation of a shale ex the Obshchiy Syrt deposit (containing 4.8% moisture, 21.6% of incombustible material, at least 2.06% CO_2, 8.4% of total S, 63.3% C, and 8.02% H) was studied in an aqueous alkaline suspension, under a pressure of 50 atm, between 75 and 200°C. The oxidation proceeds rapidly: 83% of kerogen is oxidized at 75°C, and 100% at higher temperatures. The yields of: (1) CO_2 increase from ~33% at 75 to 94.8% at 200°C, (2) higher acids decrease from ~57% at 75 to 4.2% at 200°C, (3) dibasic acid esters increase from 13% at 75 to 41.5% at 200°C, (4) H_2SO_4 increase

Card 1/2

Oxidation of oil...

from ~10% at 75 to ~30% at 200°C, (5) butanol increase from ~27% at 75°C to a maximum of ~30% at 110°C and fall to ~12% at 200°C, (6) volatile acids increase from ~3% at 75 to ~10% at 200°C; the above values are for every 100 g of kerogen oxidized. The sulfur originally present in the shale is thus practically fully oxidized to sulfate. Studies of the oxidation at 100°C and pressures of 50 and 30 atm showed that only 61% of the kerogen was oxidized at the lower pressure. Aerial oxidation may, however, be conducted, with greater efficiency, in a special tower, with continuous supply of air, at 175°C and 15 atm. Under these conditions more of the valuable products is obtained and the losses of kerogen carbon (as CO_2) are decreased. There are 3 figures and 4 tables.

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AUTHOR: Petrukhin, A. I.; Proskuryakov, V. A.

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TITLE: Determination of the total absorption coefficients of air heated by strong shock waves

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, nb. 5, 1966, 1348-1357

TOPIC TAGS: shock wave, plasma, shock wave plasma, plasma emissivity, plasma absorption, shock wave damping, shock wave energy loss, shock wave absorption

ABSTRACT: Experimental measurements were made of the dependence of the shock-wave front velocity in an electrodynamic tube on the distance from the discharge gap, and of the temperature and density distribution behind the front. The measurement data were used as the basis for determining the radiative capacity of the air heated by the wave front under conditions of the experiment. The arrangement for the measurement of shock-wave velocities was described previously by the authors (ZhETF, v. 48, 1965, p. 50, and v. 50, 1966, p. 1481). The results show that the portion of energy spent on the formation of the shock wave does not depend on the initial pressure in the tube. The formation of the shock wave extended from the

Card 1/3

source up to a distance of 26 cm. Beyond that, the shock wave characteristics are similar to those of an equivalent plane explosion at Mach numbers below 20. At higher Mach numbers, the damping of the shock wave beyond the distance of 85 cm from the source is much faster than in the case with shock waves from an explosion. These results are similar to those reported by Guthart and Morita (J. Appl. Phys., v. 36, 1965, 2577). The temperature and density distribution behind the front were determined by a method described earlier (ZhETF, v. 50, 1966, 1481) for initial tube pressures of 0.1, 0.2, and 0.5 mm Hg. The ratios of the behind-the-front temperature and density to those on the front were plotted against time at 85 and 142 cm from the source. The time dependence of these ratios at the initial pressure of 0.1 mm Hg coincided at both distances from the source. The energy loss by the layer of heated gas at the front was calculated on the basis of a simplified formula deduced from the energy conservation law using the experimental data on temperature and density distribution by a simple extrapolation of the Kuznetsov tables of the intrinsic energy relations of air (Termodinamicheskiye funktsii i udarnyye adiabaty vozdukha pri vysokikh temperaturakh. Mashinostroyeniye, 1965). The method shows that radiative cooling and thermal conductivity are the main factors of energy losses from the behind-the-front plasma. The calculation shows that in the immediate proximity of the front, at a wave velocity of 50 km/sec and a temperature of 70,000 K, the losses through thermal conduction do not exceed 10^8 erg/cm^3.sec, i.e., they are less than 0.01% of the total energy loss, the balance being ascribed to radiative cooling, which can be measured by the specific emissivity of the plasma or by the total absorption coefficient $\varkappa = fp_s/4\sigma T^4$ (fp_s - specific emissivity, σ - the

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Stefan-Boltzman constant, T - temperature in K). The discrepancy between the absorption coefficients based on this experiment and the theoretical values according to Kuznetsov (op. cit.) is found to be acceptable, considering the accuracy levels of both data. The authors thank I. O. Zel'manov for constant interest in the work and valuable comments, and N. M. Kuznetsov, I. V. Nemchinov, and K. Ye. Gubkin for useful discussions. Orig. art. has: 7 figures, 2 tables, and 5 formulas.

SUB CODE: 20/ SUBM DATE: 15Jun66/ ORIG REF: 007/ OTH REF: 004/ ATD PRESS: 5108

Card 3/3

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Flotational enrichment of oil shale. Report No. 2. Shale of the Kashpir field. Trudy VNIIT no. 11:5-19 '62. (MIRA 17:5)

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